

Claims

What is claimed is:

1. A radiotherapy device, comprising:
an implantable wire of preselected length and diameter and comprising a radioactive material, said wire being adapted for permanent implantation in a selected body tissue site and for delivering a predetermined dosage of radiation to said body tissue site.
2. The radiotherapy device of claim 1 wherein said implantable wire is flexible and is adapted for delivery to said selected body tissue site through a delivery catheter, further including a delivery wire adapted for insertion through said delivery catheter, said delivery wire having a distal end, and releasable attachment means for releasable attaching said implantable wire to said distal end of said delivery wire.
3. The radiotherapy device of claim 2, wherein said releasable attachment means is electrically releasable.
4. The radiotherapy device of claim 3, wherein said releasable attachment means comprises a soldered connection between said distal end of said delivery wire and said implantable wire.
5. The radiotherapy device of claim 2, wherein said releasable attachment means is mechanically releasable.
6. The radiotherapy device of claim 5, wherein said delivery catheter has an internal wall, and wherein said releasable attachment means comprises a pair of interengagable hooks disposed on the distal end of said delivery wire and on one of said inner core and said buffer layer at said proximal end of said radiotherapy device, said pair of hooks being maintained in engaged position by said internal wall of said delivery catheter during insertion of said radiotherapy device through said delivery catheter, and said pair of hooks being releasable from one another upon exiting said delivery catheter and removal from said wall.

7. The radiotherapy device of claim 1 wherein said wire has a selected shape that defines a central longitudinal axial passageway therein with an internal diameter, further including means for maintaining said internal diameter in a reduced state during insertion of the device into a vessel at a selected body tissue site and further including means for expanding said internal diameter at said selected body tissue site.
8. The radiotherapy device according to claim 7 wherein said selected shape is a helical coil.
9. The radiotherapy device according to claim 7 wherein said selected shape is a hollow cylinder, with walls of fine wire mesh.
10. The radiotherapy device according to claim 1 wherein said wire includes slowly releasable tumor-specific chemotherapeutic agents.
11. The radiotherapy device according to claim 1 wherein said wire includes slowly releasable sclerosing agents toxic to the endothelium.
12. The radiotherapy device according to claim 1 wherein said wire includes anti “angiogenesis factor” antibodies.
13. The radiotherapy device according to claim 1 wherein said wire is made of ferromagnetic material so as to produce focal hyperthermia when the implanted device is introduced into a high radio frequency field.